Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A gas burner, comprising:

a metal burner membrane [[,]] configured such that, during use, gas penetrates before being ignited and resulting in visible flames, wherein said membrane comprises a fabric comprising stainless steel fibers,

wherein said membrane of the gas burner comprises a base section having a smallest radius of curvature being R_{base}, a closing section, and a transition region connecting said base section to said closing section,

wherein said membrane is uninterrupted, and

wherein said transition region has a smallest radius of curvature $r_{transition}$ being larger than ~~zero~~ or equal to 0.02 x R_{base} and being smaller than ~~said~~ or equal to 0.7 x R_{base}.

2. (Canceled)

3. (Currently Amended) A gas burner as in claim [[2]] 1, wherein said stainless steel fibers are arranged essentially parallel into bundles.

4. (Original) A gas burner as in claim 3, wherein said bundles are knitted or braided or woven.

5. (Currently Amended) A gas burner as in claim [[2]] 1, wherein said membrane further comprises a foraminated plate, a foraminated sheet, or a deep drawn or stamped wire mesh for supporting said fabric.

6. – 9. (Canceled)

10. (Currently Amended) A gas burner as in claim 5, wherein said base section has a ~~frustoconical~~ shape of a conical surface of a frustum of a cone.

11. (Previously Presented) A gas burner as in claim 5, wherein said base section has a cylindrical shape.

12. (Previously Presented) A gas burner as in claim 10, wherein said transition region is part of a torus surface delimited by two planes perpendicular to an axis of symmetry of said torus.

13. (Previously Presented) A gas burner as in claim 5, wherein said base section has a polygonal cross section, the corners of said cross section being rounded.

14. (Previously Presented) A gas burner as in claim 5, wherein said base section has a rectangular cross section, the corners of said cross section being rounded.

15. (Previously Presented) A gas burner as in claim 5, wherein said base section is a truncated pyramid, said pyramid having rounded edges.

16. (Previously Presented) A gas burner as in claim 12, wherein said closing section is a small inverted sphere cap such that a depression forms at a center of said burner membrane.

17. (Previously Presented) A gas burner as in claim 11, wherein said transition region is part of a torus surface delimited by two planes perpendicular to an axis of symmetry of said torus.

18. (Previously Presented) A gas burner as in claim 11, wherein said transition region is in a form of a circular ridge.

19. (Canceled)

20. (Previously Presented) A gas burner as in claim 3, wherein said membrane further comprises a foraminated plate, a foraminated sheet, or a deep drawn or stamped wire mesh for supporting said fabric.

21. (Previously Presented) A gas burner as in claim 4, wherein said membrane further comprises a foraminated plate, a foraminated sheet, or a deep drawn or stamped wire mesh for supporting said fabric.

22. (Currently Amended) A gas burner as in claim 1, wherein the smallest radius of curvature R_{base} of the base section and the smallest radius of curvature $r_{transition}$ of the transition region follow the following relation: ~~$0.1 \times R_{base} \leq r_{transition} \leq 0.7 \times R_{base}$~~ $0.02 \times R_{base} \leq r_{transition} \leq 0.35 \times R_{base}$.

23. (Canceled)

24. (New) A gas burner as in claim 1, wherein the smallest radius of curvature R_{base} of the base section and the smallest radius of curvature $r_{transition}$ of the transition region follow the following relation: $0.09 \times R_{base} \leq r_{transition} \leq 0.7 \times R_{base}$.

25. (New) A gas burner as in claim 1, wherein the smallest radius of curvature R_{base} of the base section and the smallest radius of curvature $r_{transition}$ of the transition region follow the following relation: $0.18 \times R_{base} \leq r_{transition} \leq 0.35 \times R_{base}$.